What is claimed is:

1. A method of providing protection from reactive oxygen species, the method comprising: intentionally artificially raising the concentration of a first fuel gas compound in the tissue of an animal to a level which is above the background level of the first fuel gas compound in the tissue.

2. The method of claim 1, said animal being a human.

3. The method of claim 1, further comprising maintaining the concentration of the first fuel gas compound above the background level for a period of time greater than one hour.

4. The method of claim 3, further comprising maintaining the concentration of the first fuel gas compound above the background level for a period of time greater than one day.

5. The method of claim 4, further comprising maintaining the concentration of the first fuel gas compound above the background level for a period of time greater than one month.

6. The method of claim 1, further comprising simultaneously intentionally artificially raising the concentration of a second fuel gas compound in the tissue of the animal to a level which is above the background level of the second fuel gas compound in the tissue.

7. The method of claim 1, said first fuel gas compound being selected from hydrogen, methane, ethane, propane and acetylene.

8. A method of providing protection from reactive oxygen species, the method comprising: providing an animal with a breathable composition which contains oxygen intentionally supplemented with a first fuel gas compound.

9. The method of claim 8, said animal being a human.

10. The method of claim 8, further comprising providing the animal with the breathable composition continually for a period of time greater than one hour.

11. The method of claim 10, further comprising providing the animal with the breathable composition continually for a period of time greater than one day.

12. The method of claim 11, further comprising providing the animal with the breathable composition continually for a period of time greater than one month.

13. The method of claim 8, said first fuel gas compound being selected from hydrogen, methane, ethane, propane and acetylene.

14. The method of claim 8, said breathable composition further being intentionally supplemented with a second fuel gas compound.

15. The method of claim 8, said breathable gas composition being an explosive composition.

16. The method of claim 15, further comprising explosion-proofing the environment where the breathable composition is being provided to prevent ignition of the breathable composition or exhaled gas.

17. The method of claim 8, the breathable composition being provided at or near atmospheric pressure.

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18. The method of claim 17, the providing of the breathable composition being performed using an open circuit apparatus.

19. The method of claim 8, the providing of the breathable composition being performed using a closed circuit apparatus.

20. The method of claim 8, the providing of the breathable composition being performed using a semi-closed circuit apparatus.

21. The method of claim 8, further comprising:

the breathable composition being a lighter-than-air breathable composition provided to a chamber with an open bottom; and

positioning the animal in the chamber so that the animal breathes the breathable composition.

22. The method of claim 21, further comprising:

said breathable composition being an explosive composition; and

explosion-proofing the environment in the chamber.

23. The method of claim 21, said animal being a person and further comprising:

the person entering the chamber by passage through the open bottom of the chamber.

24. The method of claim 21, further comprising:

scrubbing the air of the chamber to remove carbon dioxide.

25. The method of claim 21, said breathable gas composition comprising at least 66% hydrogen by volume.

26. The method of claim 21, said breathable gas composition comprising hydrogen and acetylene.

27. The method of claim 21, the breathable composition in the chamber having a density less than about 75% of the ambient air.

28. The method of claim 8, further comprising:

supplying said first fuel gas into the ventilation system of a building to provide the breathable composition inside the building.

29. The method of claim 8, further comprising:

supplying said first fuel gas to the respiratory tract of the animal to provide the breathable composition upon inhalation of the fuel gas and ambient air.

30. The method of claim 29, further comprising:

supplying said first fuel gas to the respiratory tract by a nasal cannula.

31. The method of claim 8, further comprising:

supplying the breathable gas composition to the animal using an oral-nasal mask or a helmet.

32. The method of claim 29, further comprising:

the rate of supplying said first fuel gas being selected to yield a desired concentration of the first fuel gas in the inhaled breathable composition.

33.An apparatus for protecting a person from reactive oxygen species, comprising:

a supply of a fuel gas;

a supply line connected to said supply of a fuel gas;

a flow restrictor in said supply line, for restricting the flow of the fuel gas;

a valve in said supply line, for shutting off the flow of the fuel gas; and

a nasal delivery system for delivering the fuel gas mixed with ambient air to a person.

34. The apparatus of claim 33, said nasal delivery system being a nasal cannula.

35. The apparatus of claim 33, said nasal delivery system being a face mask.

36. The apparatus of claim 33, said fuel gas being hydrogen.

37. The apparatus of claim 33, said fuel gas being acetylene.

38. An apparatus for providing protection from reactive oxygen species, comprising:

a building;

ducting in the building for providing air to rooms of the building;

an explosion-proof blower connected to the ducting and having a return inlet from a room of the building;

a constant pressure source of a gas comprising a compound selected from hydrogen, methane, ethane, propane and acetylene;

a flow restrictor for restricting the flow of said gas; and

a flow diffuser installed in the ducting downstream of the explosion-proof blower.

39. The apparatus of claim 38, further comprising:

a valve installed between said source of gas and said flow diffuser, for opening when said explosion-proof blower is operating.

40. The apparatus of claim 38, further comprising:

a flow sensor in said ducting; and

a valve installed between said source of gas and said flow diffuser, for opening when said flow sensor detects air flow in the ducting.

41. The apparatus of claim 38, further comprising:

a fuel-gas sensor in the interior of the building; and

a valve installed between said source of gas and said flow diffuser, for opening when said fuel-gas sensor detects a particular level of fuel gas in the interior of the building.

42. The apparatus of claim 38, said flow restrictor allowing a flow rate of gas which achieves a level of said gas in the interior of the house which is approximately 75% of the explosive limit.

43. An apparatus for providing protection from reactive oxygen species, comprising:

a container for enclosing a person, said container having an opening at the bottom of sufficient size to allow the person to enter or exit; and

a breathable gas composition filling said container, said breathable gas composition comprising oxygen and a fuel gas compound;

said breathable gas composition further characterized in being an explosive composition and being substantially lighter than air, for remaining in the container by buoyancy.

44. The apparatus of claim 43, said breathable gas composition consisting essentially of hydrogen, acetylene and oxygen.

45. The apparatus of claim 43, said breathable gas composition consisting essentially of hydrogen and oxygen.

46. The apparatus of claim 43, said breathable gas having a density less than 75% that of air.

47. The apparatus of claim 43, further comprising:

a flexible skirt suspended from the lip defined by the bottom opening of the container.

48. The apparatus of claim 43, further comprising:

an overflow pipe inside the container extending from an entry opening above the bottom opening of the container through the top of the container; and

a non-return flap valve at the top of the overflow pipe, said non-return flap valve being located in a region providing ventilation.

49. The apparatus of claim 48, further comprising:

an inlet muffler inside the container at below the approximate height of the mouth of an occupant of the container;

a life support system located outside the container and connected to said inlet muffler, for purifying breathable gas drawn by the inlet muffler; and

a muffler diffuser pipe inside the container and connected to the life support system, for returning purified breathable gas to the container.

50. The apparatus of claim 49, said life support system further comprising:

a CO_2 scrubber;

a temperature and humidity control;

an oxygen supply, for supplementing oxygen;

a secondary loop for scrubbing nitrogen, argon, oils and other contaminants; and

an alarm system for alerting when there is a failure in the system.

51. The apparatus of claim 50, further comprising:

a fuel gas supply for supplying the fuel gas compound to the container.

52. The apparatus of claim 30, further comprising:

an explosion-proofed computer keyboard located inside the container.

53. The apparatus of claim 43, further comprising:

an antistatic mat on the floor under the container.

54. An apparatus for providing protection from reactive oxygen species, comprising:

an electrolytic cell for electrolyzing water to hydrogen and oxygen;

a supply buffer tank connected to the electrolytic cell for containing a hydrogen/oxygen mixture produced by the electrolytic cell;

a dome-loaded regulator connected to the supply buffer tank, for supplying the hydrogen/oxygen mixture;

a hose connected to the output of the dome-loaded regulator; and

a helmet connected to the hose, for supplying the hydrogen/oxygen mixture to the head of a person.

55. The apparatus of claim 54, further comprising:

a return hose connected to the helmet, for allowing gas to leave the helmet;

a dome-loaded back-pressure regulator connected to the return hose, for controlling the

pressure in the helmet to a negative pressure;

a return buffer tank connected to said dome-loaded back pressure regulator, for smoothing the flow of gas through the helmet; and

an explosion-proof suction compressor, for providing negative pressure to the helmet.

56. The apparatus of claim 55, further comprising:

a first sensing line extending from said helmet to said dome-loaded regulator; and

a second sensing line extending from said helmet to said dome-loaded back-pressure regulator.

57. The apparatus of claim 56, further comprising:

said suction compressor being designed to produce a negative pressure of approximately 3 PSI.

58. The method of claim 10, further comprising providing the animal with the breathable composition continually for a period of time greater than 4 hours.

59. The method of claim 10, further comprising providing the animal with the breathable composition for a cumulative time of greater than 15 hours in one day.

60. The method of claim 10, further comprising providing the animal with the breathable

composition for an average of greater than 12 hours a day over 30 consecutive days.

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